

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 108)

FOIL the expressions shown below:

1. $(8x + 3)(9x + 8)$

$$\begin{aligned} &(8)(9)x^2 + (8)(8)x + (3)(9)x + (3)(8) \\ &(72)x^2 + (64)x + (27)x + (24) \\ &72x^2 + 91x + 24 \end{aligned}$$

2. $(-4x + 6)(8x + 6)$

$$\begin{aligned} &(-4)(8)x^2 + (-4)(6)x + (6)(8)x + (6)(6) \\ &(-32)x^2 + (-24)x + (48)x + (36) \\ &-32x^2 + 24x + 36 \end{aligned}$$

3. $(-3x + 2)(-3x - 4)$

$$\begin{aligned} &(-3)(-3)x^2 + (-3)(-4)x + (2)(-3)x + (2)(-4) \\ &(9)x^2 + (12)x + (-6)x + (-8) \\ &9x^2 + 6x - 8 \end{aligned}$$

4. $(-2x + 3)(-5x + 8)$

$$\begin{aligned} &(-2)(-5)x^2 + (-2)(8)x + (3)(-5)x + (3)(8) \\ &(10)x^2 + (-16)x + (-15)x + (24) \\ &10x^2 - 31x + 24 \end{aligned}$$

5. $(-5x - 5)(-6x - 4)$

$$\begin{aligned} &(-5)(-6)x^2 + (-5)(-4)x + (-5)(-6)x + (-5)(-4) \\ &(30)x^2 + (20)x + (30)x + (20) \\ &30x^2 + 50x + 20 \end{aligned}$$

FOIL the expressions shown below:

6. $(8x + 7)(3x - 7)$

$$\begin{aligned}(8)(3)x^2 + (8)(-7)x + (7)(3)x + (7)(-7) \\ (24)x^2 + (-56)x + (21)x + (-49) \\ 24x^2 - 35x - 49\end{aligned}$$

7. $(2x - 6)(2x - 5)$

$$\begin{aligned}(2)(2)x^2 + (2)(-5)x + (-6)(2)x + (-6)(-5) \\ (4)x^2 + (-10)x + (-12)x + (30) \\ 4x^2 - 22x + 30\end{aligned}$$

8. $(2x + 8)(6x + 5)$

$$\begin{aligned}(2)(6)x^2 + (2)(5)x + (8)(6)x + (8)(5) \\ (12)x^2 + (10)x + (48)x + (40) \\ 12x^2 + 58x + 40\end{aligned}$$

9. $(-9x + 7)(-7x + 3)$

$$\begin{aligned}(-9)(-7)x^2 + (-9)(3)x + (7)(-7)x + (7)(3) \\ (63)x^2 + (-27)x + (-49)x + (21) \\ 63x^2 - 76x + 21\end{aligned}$$

10. $(3x - 2)(-4x - 2)$

$$\begin{aligned}(3)(-4)x^2 + (3)(-2)x + (-2)(-4)x + (-2)(-2) \\ (-12)x^2 + (-6)x + (8)x + (4) \\ -12x^2 + 2x + 4\end{aligned}$$